

Bird feeding helps females more than males

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Credit: Johan Nilsson

A new study from Lund University in Sweden shows that female birds benefit more from extra food in the winter. If females receive additional food, they do not need to reduce their body temperature as much as they would have otherwise, and the chances of surviving cold nights increase.

Birds possess an extreme ability to regulate their own [body](#) temperature. On cold winter nights, they reduce their body temperature several degrees to save energy and increase their chances of survival. The disadvantage is that the [birds](#) become more lethargic, and there is a risk of becoming easier prey for predators.

Now, researchers have shown that supplemental winter feeding is good for great tits, at least for females. The females that had access to extra food in winter did not reduce their body temperature at night as much as females who received no supplemental food. Among males, no difference in their body temperature response was noted.

"We believe it is due to males being dominant, and they manage to secure sufficient food regardless of how much is available. Females, on the other hand, are subordinate and do not have priority access to food. If there is only a little food, males have priority and ensure that they eat enough to maintain a high body temperature," says Johan Nilsson, biologist at Lund University.

The study was carried out in winter at Vombs Fure, a coniferous forest outside Lund. In one part of the forest, the researchers put out bird feeders. In another, the birds received no supplemental [food](#). The researchers then measured and compared the birds' body [temperature](#) at night.

Johan Nilsson points out that the study was carried out in a forest, and it is therefore uncertain whether bird feeding in cities is always good in general.

"What we can say, with certainty, is that females in nature benefit from being fed in winter," he says.

More information: Johan F. Nilsson et al. Predictability of food

supply modulates nocturnal hypothermia in a small passerine, *Biology Letters* (2020). [DOI: 10.1098/rsbl.2020.0133](https://doi.org/10.1098/rsbl.2020.0133)

Provided by Lund University

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